

### **Remarks**

#### ***Objections – 35 USC § 132(a)***

The amendment to the specification filed on August 14, 2008, was objected to under 35 USC 132(a) as introducing new matter into the disclosure. In response, the new matter has been cancelled and the text of the paragraph in question (page 10, lines 9-11) has been restored to its original form.

#### ***Claim Rejections – 35 USC § 101***

Pending claims 19, 20 and 22 stand rejected under 35 USC 101 as being directed to non-statutory subject matter. This rejection is traversed in view of the amendments made to claims 20 and 22. Claim 19 is cancelled.

Amended claim 20 is directed to “a computer system programmed to operate in accordance with a program...” That is, it is directed to a machine programmed to operate in accordance with the program, as suggested by the Examiner. Claim 22 is directed to a network including such a computer system. It is submitted that the subject matter of both claims now meets the statutory requirements.

#### ***Claim Rejections – 35 USC § 112***

Pending claims 19, 20 and 22 stand rejected under 35 USC 112 as failing to comply with the enablement and written description requirements. These rejections are traversed in view of the amendments to claims 20 and 22, and the cancellation of claim 19, already discussed above.

Amended claim 20 is directed to “a computer system programmed to operate in accordance with a program...” Basis for a computer system programmed in this way is found at p.10 of the specification as filed: lines 9-11 disclose a program for a computer, while lines 17-19 disclose a computer system adapted to perform a

method. As would be readily apparent to one skilled in the art, the usual way of adapting such a computer system to perform a method is to program it to operate in accordance with a program comprising instructions embodying the method. The skilled person would have no difficulty at all in implementing such program and computer system using conventional methods (and the teaching of the specification as filed). Therefore, Applicant submits that the claimed subject matter is fully enabled. There is no feature critical or essential to the practice of the invention which is not enabled by the disclosure, in light of the common general knowledge of a skilled person in the field.

Amendments to claim 1 (discussed in greater detail below) have ensured that correct antecedent basis is provided for all the recited limitations.

### ***Claim Rejections – 35 USC § 102***

All pending claims stand rejected under 35 USC 102(e), as being anticipated by Rajarajan et al. (US 2002/0120784). This rejection is traversed in light of the amendments to claims 1, 6-8, 18, and 20 in conjunction with the following remarks.

Claim 1 is amended to recite that the characteristic of each of the two entities described by the at least one semantic information element is “a characteristic of an interface capability”. Basis for this wording is found at p.5, line 14 of the specification as filed.

It is also clarified that the entities are “seeking to communicate across a network” and that the adaptive software interface generated by the method is such that “the entities are able to communicate despite the fact that the interface capabilities of the entities are different”. Basis for this language is found at p.1, line 10-14, and p.2, lines 30-31, respectively. The feature recited in claim 18 as filed, that the interface of the first entity “has at least one differing characteristic” from the interface of the second entity is also imported into claim 1.

Particularly in light of these amendments, Applicant submits that claim 1 is clearly novel compared with Rajarajan.

The Examiner has repeatedly asserted that Rajarajan discloses “how interfaces are provided for compatibility”. The Examiner has asserted that these “interfaces” are “equivalent” to the claimed generated adaptive software interface of claim 1. With regret, Applicant still fails to understand what aspect of any interface of Rajarajan is considered by the Examiner to be “adaptive” as required by claim 1. It is hoped that the present amendments clarify the subject matter of the claim sufficiently to emphasize that there is no “equivalence” whatsoever, let alone the identity of features necessary for anticipation.

Rajarajan discloses a method of separating visual modeling elements into notations and associated semantics. That is, it enables the visual appearance of a graphical modeling element to be separated from the underlying internal meaning of that element. This allows different semantics to be associated with the same notation, and vice versa, subject to certain constraints. The constraints enforce consistency criteria, to prevent a given semantic being associated with an inappropriate notation (and vice versa). The appropriateness (or otherwise) of a given association is determined by the properties of the elements being modeled, not the implementation of the model.

Rajarajan discloses how the semantic and notation may be implemented as software objects. These objects are then associated by a “paradigm server” in order to be used as modeling elements in a visual modeling framework.

In accordance with standard object-oriented software design principles, Rajarajan discusses an embodiment in which the interfaces of the notation and semantic server objects are queried to retrieve attributes of the objects. This is done in order to determine compatibility. However, this compatibility is at the level of model parameters – there is no question of compatibility of the actual communications

interface. As stated at p.7, paragraph [0063]: “Notation and semantic objects are found to be compatible by going through their interfaces”. Clearly, the software interface is **used** to determined whether the underlying notation and semantic are compatible, at the model level. The actual software interfaces **must** already be compatible in order for this exchange to take place at all.

The present invention is concerned with this lower-level of compatibility – how to ensure that different software objects **can communicate at all**.

Differences between the claimed subject matter and Rajarajan can be enumerated as follows:

1. Rajarajan does not disclose generating or collating semantic information elements describing “a characteristic of an **interface capability**” of an entity. Any metadata collated by Rajarajan relates to the characteristics of the model element which the software object represents. The **interface capabilities** of the software objects are taken for granted.
2. The semantic server and notation server of Rajarajan do not “seek to communicate across a network”. In fact, they do not communicate with one another at all; rather, they are merely associated by a third party – the paradigm server.
3. The entities of Rajarajan do not have interfaces with “at least one differing characteristic” and are not “able to communicate despite the fact that the interface capabilities of the entities are different”. This is because Rajarajan does not provide for an adaptive software interface. The interfaces of each software object are fixed, as is conventional. Thus, it is taken for granted, according to Rajarajan, that the interface capabilities of the two entities are identical.

The adaptive software interface of the present invention provides a version, programming-language and interface-definition independent interface, which enables

(for example) successful communication despite different versions of an interface having been compiled into each software component – that is, which allows communication **despite** differences between the interfaces of each object. Rajarajan is totally silent on this problem and so it is unsurprising that it is equally silent on any remedy whatsoever – let alone the specific solution offered by the present invention. For completeness, Applicant notes that the aforementioned advantages, discussed at length in the specification as filed, render the present invention inventive.

Claim 6 is amended to correct a minor inconsistency in the number of the claim from which it depends. Claim 5 is the first claim to introduce the “interface description” referred to in claim 6. Therefore, it would be immediately apparent that claim 6 must depend from claim 5, and not claim 1 as previously recited.

Claim 7 is amended for consistency with the amended wording of claim 1.

Claim 8 is amended correspondingly to claim 1, to recite the limitations that the entities are “seeking to communicate across a network, wherein an interface the first entity has at least one differing characteristic from an interface of the at least one other entity” and that the semantic information element describes “a characteristic of an interface capability”. Points 1 to 3 of the novelty discussion above (for claim 1) thus apply likewise to claim 8.

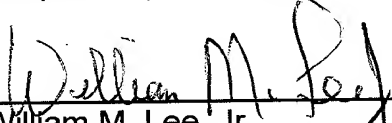
Claim 18 is also amended correspondingly, such that points 1 and 2 of the novelty discussion above apply likewise to this claim. Furthermore, it is noted that Rajarajan does not disclose the existing limitation of claim 18 that “an interface of the initiator has at least one differing characteristic from an interface of the responder”, since Rajarajan does not disclose that the semantic server and notation server may have different software interfaces (see novelty point 3 above).

In addition to the amendments to claim 20 discussed above (in relation to the claim rejections under 35 USC § 101), claim 20 is amended to recite the same limitations – and in the same claim language – as claim 1.

In view of the fact that all of the Examiner's comments have been addressed, further and favorable reconsideration is respectfully requested.

February 10, 2009

Respectfully submitted,

  
\_\_\_\_\_  
William M. Lee, Jr.  
Registration No. 26,935  
Barnes & Thornburg LLP  
P.O. Box 2786  
Chicago, Illinois 60690-2786  
(312) 214-4800  
(312) 759-5646 (fax)